



**STATE OF TENNESSEE  
DEPARTMENT OF HEALTH  
ENVIRONMENTAL LABORATORIES**

TDH: Lab Services JRL  
Lab Services - Jackson Regional Lab  
Jackson, TN 38301  
731-426-0686

TDH: Lab Services KRL  
Lab Services - Knoxville Regional Lab  
Knoxville, TN 37920  
865-549-5201

TDH: Lab Services NCL  
Lab Services - Nashville Central Lab  
Nashville, TN 37243  
615-262-6300

**Sent To:** Greg Denton  
TDEC-WPC  
6th Floor, L & C Tower Annex  
401 Church Street  
Nashville, TN 37243-1534


Michael Atchley  
TDEC-WPC  
Knoxville FO  
3711 Middlebrook Pike  
Knoxville, TN 37921

**Lab ID:** K00002336  
Knoxville Regional Laboratory

**Sampling Agency:** TDEC: Division of Water Pollution Control

**Billing Code:** 327.34-20

This is to certify that the following results were determined using good laboratory practices and in accordance with federal or state approved methodologies.

  
Analytical Supervisor

**Lab-Sample Number:** K00002336001  
**Project Name:** TVA-Ash Spill  
**Sample Description:** Emory River mile 12.1  
**Sampler Project Name:** TVA Ash Spill  
**Project Site No.:** 1  
**Station No.:** EMORY012.1RO  
**Date/Time Collected:** 04/30/2009 09:35  
**Sampler's Name:** Brandy Long  
**County:** ROANE - 73  
**Sample Matrix:** Water  
**EFO:** Knoxville  
**Sampling Agency:** TDEC-WPC  
**Billing Code:** 327.34-20  
**Send Report To:** TDEC-WPC  
**Agency Invoiced:** TDEC-WPC  
**Priority Date:**  
**Date/Time Received:** 04/30/2009 14:25  
**Received By:** E McCrary

**Field Determinations**  
**pH:** 7.03 pH Units  
**Chlorine, residual:**  
**Conductivity:** 65 uMHO  
**Temperature:** 19.12  
**Dissolved Oxygen:** 8.42 mg/L  
**Other:**  
**Flow:** CFS

TEST: Alkalinity, Total		METHOD: EPA 310.2				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Alkalinity	20	mg/L	3.8	10	S Burchfield	5/1/2009

TEST: Hardness, Calcium		METHOD: SM 3500-Ca D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Calcium hardness	23	mg/L	0.7	1	P Leathers	5/1/2009

TEST: Residue, Settleable		METHOD: SM 2540F				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Settleable Residue	U	ml/L	0.10	0.10	P Leathers	5/1/2009

TEST: Residue, Suspended		METHOD: SM 2540D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Suspended Solids	U	mg/L	10	10	A Peebles	5/1/2009

**J - Estimated value between MDL and MQL**  
**MDL - Method Detection Limit**  
**MQL - Method Quantitation Limit**  
**U - Undetected**

**Lab-Sample Number:** K00002336002  
**Project Name:** TVA-Ash Spill  
**Sample Description:** Emory River Mile 2.1  
**Sampler Project Name:** TVA Ash Spill  
**Project Site No.:** 2  
**Station No.:** EMORY002.1RO  
**Date/Time Collected:** 04/30/2009 10:35  
**Sampler's Name:** Brandy Long  
**County:** ROANE - 73  
**Sample Matrix:** Water  
**EFO:** Knoxville  
**Sampling Agency:** TDEC-WPC  
**Billing Code:** 327.34-20  
**Send Report To:** TDEC-WPC  
**Agency Invoiced:** TDEC-WPC  
**Priority Date:**  
**Date/Time Received:** 04/30/2009 14:25  
**Received By:** E McCrary

**Field Determinations**  
**pH:** 7.30 pH Units  
**Chlorine, residual:**  
**Conductivity:** 60 uMHO  
**Temperature:** 20.62  
**Dissolved Oxygen:** 9.84 mg/L  
**Other:**  
**Flow:** CFS

TEST: Alkalinity, Total		METHOD: EPA 310.2				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Alkalinity	15	mg/L	3.8	10	S Burchfield	5/1/2009

TEST: Hardness, Calcium		METHOD: SM 3500-Ca D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Calcium hardness	20	mg/L	0.7	1	P Leathers	5/1/2009

TEST: Residue, Settleable		METHOD: SM 2540F				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Settleable Residue	U	ml/L	0.10	0.10	P Leathers	5/1/2009

TEST: Residue, Suspended		METHOD: SM 2540D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Suspended Solids	U	mg/L	10	10	A Peebles	5/1/2009

J - Estimated value between MDL and MQL

MDL - Method Detection Limit

MQL - Method Quantitation Limit

U - Undetected

**Lab-Sample Number:** K00002336003  
**Project Name:** TVA-Ash Spill  
**Sample Description:** Approx 100' d/s from middle dredge point  
**Sampler Project Name:** TVA Ash Spill  
**Project Site No.:** 2A  
**Station No.:** Dredge Plume  
**Date/Time Collected:** 04/30/2009 10:47  
**Sampler's Name:** Brandy Long  
**County:** ROANE - 73  
**Sample Matrix:** Water  
**EFO:** Knoxville  
**Sampling Agency:** TDEC-WPC  
**Billing Code:** 327.34-20  
**Send Report To:** TDEC-WPC  
**Agency Invoiced:** TDEC-WPC  
**Priority Date:**  
**Date/Time Received:** 04/30/2009 14:25  
**Received By:** E McCrary

**Field Determinations**  
**pH:** 7.29 pH Units  
**Chlorine, residual:**  
**Conductivity:** 62 uMHO  
**Temperature:** 19.97  
**Dissolved Oxygen:** 9.31 mg/L  
**Other:**  
**Flow:** CFS

TEST: Alkalinity, Total		METHOD: EPA 310.2				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Alkalinity	16	mg/L	3.8	10	S Burchfield	5/1/2009

TEST: Hardness, Calcium		METHOD: SM 3500-Ca D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Calcium hardness	18	mg/L	0.7	1	P Leathers	5/1/2009

TEST: Residue, Settleable		METHOD: SM 2540F				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Settleable Residue	U	ml/L	0.10	0.10	P Leathers	5/1/2009

TEST: Residue, Suspended		METHOD: SM 2540D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Suspended Solids	U	mg/L	10	10	A Peebles	5/1/2009

**J - Estimated value between MDL and MQL**  
**MDL - Method Detection Limit**  
**MQL - Method Quantitation Limit**  
**U - Undetected**

**Lab-Sample Number:** K00002336004  
**Project Name:** TVA-Ash Spill  
**Sample Description:** Emory River mile 1.9 at underwater weir  
**Sampler Project Name:** TVA Ash Spill  
**Project Site No.:** 2B  
**Station No.:** EMORY001.9RO  
**Date/Time Collected:** 04/30/2009 10:55  
**Sampler's Name:** Brandy Long  
**County:** ROANE - 73  
**Sample Matrix:** Water  
**EFO:** Knoxville  
**Sampling Agency:** TDEC-WPC  
**Billing Code:** 327.34-20  
**Send Report To:** TDEC-WPC  
**Agency Invoiced:** TDEC-WPC  
**Priority Date:**  
**Date/Time Received:** 04/30/2009 14:25  
**Received By:** E McCrary

**Field Determinations**  
**pH:** 7.20 pH Units  
**Chlorine, residual:**  
**Conductivity:** 59 uMHO  
**Temperature:** 19.70  
**Dissolved Oxygen:** 9.22 mg/L  
**Other:**  
**Flow:** CFS

TEST: Alkalinity, Total		METHOD: EPA 310.2				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Alkalinity	16	mg/L	3.8	10	S Burchfield	5/1/2009

TEST: Hardness, Calcium		METHOD: SM 3500-Ca D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Calcium hardness	21	mg/L	0.7	1	P Leathers	5/1/2009

TEST: Residue, Settleable		METHOD: SM 2540F				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Settleable Residue	U	ml/L	0.10	0.10	P Leathers	5/1/2009

TEST: Residue, Suspended		METHOD: SM 2540D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Suspended Solids	U	mg/L	10	10	A Peebles	5/1/2009

**J - Estimated value between MDL and MQL**  
**MDL - Method Detection Limit**  
**MQL - Method Quantitation Limit**  
**U - Undetected**

**Lab-Sample Number:** K00002336005  
**Project Name:** TVA-Ash Spill  
**Sample Description:** Emory River mile 1.7  
**Sampler Project Name:** TVA Ash Spill  
**Project Site No.:** 3  
**Station No.:** EMORY001.7RO  
**Date/Time Collected:** 04/30/2009 11:07  
**Sampler's Name:** Brandy Long  
**County:** ROANE - 73  
**Sample Matrix:** Water  
**EFO:** Knoxville  
**Sampling Agency:** TDEC-WPC  
**Billing Code:** 327.34-20  
**Send Report To:** TDEC-WPC  
**Agency Invoiced:** TDEC-WPC  
**Priority Date:**  
**Date/Time Received:** 04/30/2009 14:25  
**Received By:** E McCrary

**Field Determinations**  
**pH:** 8.68 pH Units  
**Chlorine, residual:**  
**Conductivity:** 139 uMHO  
**Temperature:** 21.91  
**Dissolved Oxygen:** 11.58 mg/L  
**Other:**  
**Flow:** CFS

TEST: Alkalinity, Total		METHOD: EPA 310.2				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Alkalinity	55	mg/L	3.8	10	S Burchfield	5/1/2009

TEST: Hardness, Calcium		METHOD: SM 3500-Ca D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Calcium hardness	48	mg/L	0.7	1	P Leathers	5/1/2009

TEST: Residue, Settleable		METHOD: SM 2540F				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Settleable Residue	U	ml/L	0.10	0.10	P Leathers	5/1/2009

TEST: Residue, Suspended		METHOD: SM 2540D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Suspended Solids	U	mg/L	10	10	A Peebles	5/1/2009

**J - Estimated value between MDL and MQL**  
**MDL - Method Detection Limit**  
**MQL - Method Quantitation Limit**  
**U - Undetected**

**Lab-Sample Number:** K00002336006  
**Project Name:** TVA-Ash Spill  
**Sample Description:** Emory River mile 0.1  
**Sampler Project Name:** TVA Ash Spill  
**Project Site No.:** 4  
**Station No.:** EMORY000.1RO  
**Date/Time Collected:** 04/30/2009 11:17  
**Sampler's Name:** Brandy Long  
**County:** ROANE - 73  
**Sample Matrix:** Water  
**EFO:** Knoxville  
**Sampling Agency:** TDEC-WPC  
**Billing Code:** 327.34-20  
**Send Report To:** TDEC-WPC  
**Agency Invoiced:** TDEC-WPC  
**Priority Date:**  
**Date/Time Received:** 04/30/2009 14:25  
**Received By:** E McCrary

**Field Determinations**  
**pH:** 8.49 pH Units  
**Chlorine, residual:**  
**Conductivity:** 128 uMHO  
**Temperature:** 21.98  
**Dissolved Oxygen:** 10.94 mg/L  
**Other:**  
**Flow:** CFS

TEST: Alkalinity, Total		METHOD: EPA 310.2				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Alkalinity	75	mg/L	3.8	10	S Burchfield	5/1/2009

TEST: Hardness, Calcium		METHOD: SM 3500-Ca D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Calcium hardness	62	mg/L	0.7	1	P Leathers	5/1/2009

TEST: Residue, Settleable		METHOD: SM 2540F				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Settleable Residue	U	ml/L	0.10	0.10	P Leathers	5/1/2009

TEST: Residue, Suspended		METHOD: SM 2540D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Suspended Solids	U	mg/L	10	10	A Peebles	5/1/2009

**J - Estimated value between MDL and MQL**  
**MDL - Method Detection Limit**  
**MQL - Method Quantitation Limit**  
**U - Undetected**

**Lab-Sample Number:** K00002336007  
**Project Name:** TVA-Ash Spill  
**Sample Description:** Clinch River mile 2.3  
**Sampler Project Name:** TVA Ash Spill  
**Project Site No.:** 5  
**Station No.:** CLINC002.3RO  
**Date/Time Collected:** 04/30/2009 11:27  
**Sampler's Name:** Brandy Long  
**County:** ROANE - 73  
**Sample Matrix:** Water  
**EFO:** Knoxville  
**Sampling Agency:** TDEC-WPC  
**Billing Code:** 327.34-20  
**Send Report To:** TDEC-WPC  
**Agency Invoiced:** TDEC-WPC  
**Priority Date:**  
**Date/Time Received:** 04/30/2009 14:25  
**Received By:** E McCrary

**Field Determinations**  
**pH:** 7.90 pH Units  
**Chlorine, residual:**  
**Conductivity:** 98 uMHO  
**Temperature:** 22.00  
**Dissolved Oxygen:** 9.83 mg/L  
**Other:**  
**Flow:** CFS

TEST: Alkalinity, Total		METHOD: EPA 310.2				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Alkalinity	75	mg/L	3.8	10	S Burchfield	5/1/2009

TEST: Hardness, Calcium		METHOD: SM 3500-Ca D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Calcium hardness	61	mg/L	0.7	1	P Leathers	5/1/2009

TEST: Residue, Settleable		METHOD: SM 2540F				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Settleable Residue	U	ml/L	0.10	0.10	P Leathers	5/1/2009

TEST: Residue, Suspended		METHOD: SM 2540D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Suspended Solids	14	mg/L	10	10	A Peebles	5/1/2009

**J - Estimated value between MDL and MQL**  
**MDL - Method Detection Limit**  
**MQL - Method Quantitation Limit**  
**U - Undetected**



**Lab-Sample Number:** K00002336008  
**Project Name:** TVA-Ash Spill  
**Sample Description:** Clinch River TVA Discharge Point  
**Sampler Project Name:** TVA Ash Spill  
**Project Site No.:** 5A  
**Station No.:** TN0005452Outfall002  
**Date/Time Collected:** 04/30/2009 11:37  
**Sampler's Name:** Brandy Long  
**County:** ROANE - 73  
**Sample Matrix:** Water  
**EFO:** Knoxville  
**Sampling Agency:** TDEC-WPC  
**Billing Code:** 327.34-20  
**Send Report To:** TDEC-WPC  
**Agency Invoiced:** TDEC-WPC  
**Priority Date:**  
**Date/Time Received:** 04/30/2009 14:25  
**Received By:** E McCrary

**Field Determinations**  
**pH:** 7.62 pH Units  
**Chlorine, residual:**  
**Conductivity:** 88 uMHO  
**Temperature:** 22.35  
**Dissolved Oxygen:** 9.63 mg/L  
**Other:**  
**Flow:** CFS

TEST: Alkalinity, Total		METHOD: EPA 310.2				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Alkalinity	26	mg/L	3.8	10	S Burchfield	5/1/2009

TEST: Hardness, Calcium		METHOD: SM 3500-Ca D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Calcium hardness	35	mg/L	0.7	1	P Leathers	5/1/2009

TEST: Residue, Settleable		METHOD: SM 2540F				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Settleable Residue	U	ml/L	0.10	0.10	P Leathers	5/1/2009

TEST: Residue, Suspended		METHOD: SM 2540D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Suspended Solids	20	mg/L	10	10	A Peebles	5/1/2009

**J - Estimated value between MDL and MQL**  
**MDL - Method Detection Limit**  
**MQL - Method Quantitation Limit**  
**U - Undetected**

<b>Lab-Sample Number:</b>	K00002336009	<b>Field Determinations</b>	
<b>Project Name:</b>	TVA-Ash Spill	<b>pH:</b>	8.42 pH Units
<b>Sample Description:</b>	Clinch River mile 4.5 near Sugar Grove Valley R	<b>Chlorine, residual:</b>	
<b>Sampler Project Name:</b>	TVA Ash Spill	<b>Conductivity:</b>	133 uMHO
<b>Project Site No.:</b>	6	<b>Temperature:</b>	21.85
<b>Station No.:</b>	CLINC004.5RO	<b>Dissolved Oxygen:</b>	10.95 mg/L
<b>Date/Time Collected:</b>	04/30/2009 11:49	<b>Other:</b>	
<b>Sampler's Name:</b>	Brandy Long	<b>Flow:</b>	CFS
<b>County:</b>	ROANE - 73		
<b>Sample Matrix:</b>	Water		
<b>EFO:</b>	Knoxville		
<b>Sampling Agency:</b>	TDEC-WPC		
<b>Billing Code:</b>	327.34-20		
<b>Send Report To:</b>	TDEC-WPC		
<b>Agency Invoiced:</b>	TDEC-WPC		
<b>Priority Date:</b>			
<b>Date/Time Received:</b>	04/30/2009 14:25		
<b>Received By:</b>	E McCrary		

TEST: Alkalinity, Total		METHOD: EPA 310.2				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Alkalinity	99	mg/L	3.8	10	S Burchfield	5/1/2009

TEST: Hardness, Calcium		METHOD: SM 3500-Ca D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Calcium hardness	80	mg/L	0.7	1	P Leathers	5/1/2009

TEST: Residue, Settleable		METHOD: SM 2540F				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Settleable Residue	U	ml/L	0.10	0.10	P Leathers	5/1/2009

TEST: Residue, Suspended		METHOD: SM 2540D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Suspended Solids	U	mg/L	10	10	A Peebles	5/1/2009

**J - Estimated value between MDL and MQL**  
**MDL - Method Detection Limit**  
**MQL - Method Quantitation Limit**  
**U - Undetected**



**STATE OF TENNESSEE  
DEPARTMENT OF HEALTH  
ENVIRONMENTAL LABORATORIES**

TDH: Lab Services JRL  
Lab Services - Jackson Regional Lab  
Jackson, TN 38301  
731-426-0686

TDH: Lab Services KRL  
Lab Services - Knoxville Regional Lab  
Knoxville, TN 37920  
865-549-5201

TDH: Lab Services NCL  
Lab Services - Nashville Central Lab  
Nashville, TN 37243  
615-262-6300

**Sent To:** Greg Denton  
TDEC-WPC  
6th Floor, L & C Tower Annex  
401 Church Street  
Nashville, TN 37243-1534

Michael Atchley  
TDEC-WPC  
Knoxville FO  
3711 Middlebrook Pike  
Knoxville, TN 37921

**Lab ID:** K00002336  
Knoxville Regional Laboratory

**Sampling Agency:** TDEC: Division of Water Pollution Control

**Billing Code:** 327.34-20

This is to certify that the following results were determined using  
good laboratory practices and in accordance with federal or state  
approved methodologies.

Analytical Supervisor

**Lab-Sample Number:** K00002336001  
**Project Name:** TVA-Ash Spill  
**Sample Description:** Emory River mile 12.1  
**Sampler Project Name:** TVA Ash Spill  
**Project Site No.:** 1  
**Station No.:** EMORY012.1RO  
**Date/Time Collected:** 04/30/2009 09:35  
**Sampler's Name:** Brandy Long  
**County:** ROANE - 73  
**Sample Matrix:** Water  
**EFO:** Knoxville  
**Sampling Agency:** TDEC-WPC  
**Billing Code:** 327.34-20  
**Send Report To:** TDEC-WPC  
**Agency Invoiced:** TDEC-WPC  
**Priority Date:**  
**Date/Time Received:** 04/30/2009 14:25  
**Received By:** E McCrary

**Field Determinations**  
**pH:** 7.03 pH Units  
**Chlorine, residual:**  
**Conductivity:** 65 uMHO  
**Temperature:** 19.12  
**Dissolved Oxygen:** 8.42 mg/L  
**Other:**  
**Flow:** CFS

TEST: Digestion Metals		METHOD: EPA 200.2				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Digestion Metals	05/02/2009				A Wilson	5/2/2009

TEST: ICP		METHOD: EPA 200.7				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Iron	150	µg/L	2.9	10	A Wilson	5/14/2009

TEST: ICP-MS		METHOD: EPA 200.8				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Aluminum	48	µg/L	6.4	10	A Wilson	5/8/2009
Antimony	U	µg/L	0.33	1	A Wilson	5/8/2009
Arsenic	U	µg/L	0.93	5	A Wilson	5/9/2009
Barium	26	µg/L	2.5	5	A Wilson	5/8/2009
Beryllium	U	µg/L	0.11	1	A Wilson	5/8/2009
Cadmium	U	µg/L	0.41	1	A Wilson	5/8/2009
Chromium	U	µg/L	2.0	5	A Wilson	5/8/2009
Cobalt	0.27J	µg/L	0.04	1	A Wilson	5/8/2009
Copper	3.1	µg/L	0.38	1	A Wilson	5/8/2009
Lead	0.14J	µg/L	0.10	1	A Wilson	5/8/2009
Manganese	139	µg/L	0.42	1	A Wilson	5/8/2009
Nickel	0.98J	µg/L	0.25	1	A Wilson	5/8/2009
Selenium	U	µg/L	1.3	5	A Wilson	5/9/2009
Silver	U	µg/L	0.03	0.25	A Wilson	5/8/2009
Thallium	U	µg/L	0.03	1	A Wilson	5/8/2009
Vanadium	U	µg/L	3.4	5	A Wilson	5/9/2009
Zinc	U	µg/L	1.9	5	A Wilson	5/8/2009

**Lab-Sample Number:** K00002336001  
**Project Name:** TVA-Ash Spill  
**Sample Description:** Emory River mile 12.1  
**Sampler Project Name:** TVA Ash Spill  
**Project Site No.:** 1  
**Station No.:** EMORY012.1RO  
**Date/Time Collected:** 04/30/2009 09:35  
**Sampler's Name:** Brandy Long  
**County:** ROANE - 73  
**Sample Matrix:** Water  
**EFO:** Knoxville  
**Sampling Agency:** TDEC-WPC  
**Billing Code:** 327.34-20  
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**Priority Date:**  
**Date/Time Received:** 04/30/2009 14:25  
**Received By:** E McCrary

**Field Determinations**  
**pH:** 7.03 pH Units  
**Chlorine, residual:**  
**Conductivity:** 65 uMHO  
**Temperature:** 19.12  
**Dissolved Oxygen:** 8.42 mg/L  
**Other:**  
**Flow:** CFS

TEST: Mercury		METHOD: EPA 245.1				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Mercury	0.22	µg/L	0.029	0.2	A Bass	4/30/2009

J - Estimated value between MDL and MQL

MDL - Method Detection Limit

MQL - Method Quantitation Limit

U - Undetected

**Lab-Sample Number:** K00002336002  
**Project Name:** TVA-Ash Spill  
**Sample Description:** Emory River Mile 2.1  
**Sampler Project Name:** TVA Ash Spill  
**Project Site No.:** 2  
**Station No.:** EMORY002.1RO  
**Date/Time Collected:** 04/30/2009 10:35  
**Sampler's Name:** Brandy Long  
**County:** ROANE - 73  
**Sample Matrix:** Water  
**EFO:** Knoxville  
**Sampling Agency:** TDEC-WPC  
**Billing Code:** 327.34-20  
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**Agency Invoiced:** TDEC-WPC  
**Priority Date:**  
**Date/Time Received:** 04/30/2009 14:25  
**Received By:** E McCrary

**Field Determinations**  
**pH:** 7.30 pH Units  
**Chlorine, residual:**  
**Conductivity:** 60 uMHO  
**Temperature:** 20.62  
**Dissolved Oxygen:** 9.84 mg/L  
**Other:**  
**Flow:** CFS

TEST: Digestion Metals		METHOD: EPA 200.2				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Digestion Metals	05/02/2009				A Wilson	5/2/2009

TEST: ICP		METHOD: EPA 200.7				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Iron	180	µg/L	2.9	10	A Wilson	5/14/2009

TEST: ICP-MS		METHOD: EPA 200.8				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Aluminum	250	µg/L	32.0	50	A Wilson	5/8/2009
Antimony	U	µg/L	0.33	1	A Wilson	5/8/2009
Arsenic	U	µg/L	0.93	5	A Wilson	5/9/2009
Barium	29	µg/L	2.5	5	A Wilson	5/8/2009
Beryllium	U	µg/L	0.11	1	A Wilson	5/8/2009
Cadmium	U	µg/L	0.41	1	A Wilson	5/8/2009
Chromium	U	µg/L	2.0	5	A Wilson	5/8/2009
Cobalt	0.27J	µg/L	0.04	1	A Wilson	5/8/2009
Copper	1.1	µg/L	0.38	1	A Wilson	5/8/2009
Lead	0.41J	µg/L	0.10	1	A Wilson	5/8/2009
Manganese	43	µg/L	0.42	1	A Wilson	5/8/2009
Nickel	0.98J	µg/L	0.25	1	A Wilson	5/8/2009
Selenium	U	µg/L	1.3	5	A Wilson	5/9/2009
Silver	U	µg/L	0.03	0.25	A Wilson	5/8/2009
Thallium	0.037J	µg/L	0.03	1	A Wilson	5/8/2009
Vanadium	U	µg/L	3.4	5	A Wilson	5/9/2009
Zinc	U	µg/L	1.9	5	A Wilson	5/8/2009

**Lab-Sample Number:** K00002336002  
**Project Name:** TVA-Ash Spill  
**Sample Description:** Emory River Mile 2.1  
**Sampler Project Name:** TVA Ash Spill  
**Project Site No.:** 2  
**Station No.:** EMORY002.1RO  
**Date/Time Collected:** 04/30/2009 10:35  
**Sampler's Name:** Brandy Long  
**County:** ROANE - 73  
**Sample Matrix:** Water  
**EFO:** Knoxville  
**Sampling Agency:** TDEC-WPC  
**Billing Code:** 327.34-20  
**Send Report To:** TDEC-WPC  
**Agency Invoiced:** TDEC-WPC  
**Priority Date:**  
**Date/Time Received:** 04/30/2009 14:25  
**Received By:** E McCrary

**Field Determinations**  
**pH:** 7.30 pH Units  
**Chlorine, residual:**  
**Conductivity:** 60 uMHO  
**Temperature:** 20.62  
**Dissolved Oxygen:** 9.84 mg/L  
**Other:**  
**Flow:** CFS

TEST: Mercury		METHOD: EPA 245.1				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Mercury	0.03J	µg/L	0.029	0.2	A Bass	4/30/2009

J - Estimated value between MDL and MQL  
 MDL - Method Detection Limit  
 MQL - Method Quantitation Limit  
 U - Undetected

**Lab-Sample Number:** K00002336003  
**Project Name:** TVA-Ash Spill  
**Sample Description:** Approx 100' d/s from middle dredge point  
**Sampler Project Name:** TVA Ash Spill  
**Project Site No.:** 2A  
**Station No.:** Dredge Plume  
**Date/Time Collected:** 04/30/2009 10:47  
**Sampler's Name:** Brandy Long  
**County:** ROANE - 73  
**Sample Matrix:** Water  
**EFO:** Knoxville  
**Sampling Agency:** TDEC-WPC  
**Billing Code:** 327.34-20  
**Send Report To:** TDEC-WPC  
**Agency Invoiced:** TDEC-WPC  
**Priority Date:**  
**Date/Time Received:** 04/30/2009 14:25  
**Received By:** E McCrary

**Field Determinations**  
**pH:** 7.29 pH Units  
**Chlorine, residual:**  
**Conductivity:** 62 uMHO  
**Temperature:** 19.97  
**Dissolved Oxygen:** 9.31 mg/L  
**Other:**  
**Flow:** CFS

TEST: Digestion Metals			METHOD: EPA 200.2			
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Digestion Metals	05/02/2009				A Wilson	5/2/2009

TEST: ICP			METHOD: EPA 200.7			
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Iron	180	µg/L	2.9	10	A Wilson	5/14/2009

TEST: ICP-MS			METHOD: EPA 200.8			
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Aluminum	220	µg/L	32.0	50	A Wilson	5/8/2009
Antimony	U	µg/L	0.33	1	A Wilson	5/8/2009
Arsenic	U	µg/L	0.93	5	A Wilson	5/9/2009
Barium	30	µg/L	2.5	5	A Wilson	5/8/2009
Beryllium	U	µg/L	0.11	1	A Wilson	5/8/2009
Cadmium	U	µg/L	0.41	1	A Wilson	5/8/2009
Chromium	U	µg/L	2.0	5	A Wilson	5/8/2009
Cobalt	0.28J	µg/L	0.04	1	A Wilson	5/8/2009
Copper	4.5	µg/L	0.38	1	A Wilson	5/8/2009
Lead	0.50J	µg/L	0.10	1	A Wilson	5/8/2009
Manganese	44	µg/L	0.42	1	A Wilson	5/8/2009
Nickel	1.1	µg/L	0.25	1	A Wilson	5/8/2009
Selenium	U	µg/L	1.3	5	A Wilson	5/9/2009
Silver	U	µg/L	0.03	0.25	A Wilson	5/8/2009
Thallium	0.035J	µg/L	0.03	1	A Wilson	5/8/2009
Vanadium	U	µg/L	3.4	5	A Wilson	5/9/2009
Zinc	U	µg/L	1.9	5	A Wilson	5/8/2009



**Lab-Sample Number:** K00002336003  
**Project Name:** TVA-Ash Spill  
**Sample Description:** Approx 100' d/s from middle dredge point  
**Sampler Project Name:** TVA Ash Spill  
**Project Site No.:** 2A  
**Station No.:** Dredge Plume  
**Date/Time Collected:** 04/30/2009 10:47  
**Sampler's Name:** Brandy Long  
**County:** ROANE - 73  
**Sample Matrix:** Water  
**EFO:** Knoxville  
**Sampling Agency:** TDEC-WPC  
**Billing Code:** 327.34-20  
**Send Report To:** TDEC-WPC  
**Agency Invoiced:** TDEC-WPC  
**Priority Date:**  
**Date/Time Received:** 04/30/2009 14:25  
**Received By:** E McCrary

**Field Determinations**  
**pH:** 7.29 pH Units  
**Chlorine, residual:**  
**Conductivity:** 62 uMHO  
**Temperature:** 19.97  
**Dissolved Oxygen:** 9.31 mg/L  
**Other:**  
**Flow:** CFS

TEST: Mercury		METHOD: EPA 245.1				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Mercury	0.19J	µg/L	0.029	0.2	A Bass	4/30/2009

J - Estimated value between MDL and MQL  
 MDL - Method Detection Limit  
 MQL - Method Quantitation Limit  
 U - Undetected

**Lab-Sample Number:** K00002336004  
**Project Name:** TVA-Ash Spill  
**Sample Description:** Emory River mile 1.9 at underwater weir  
**Sampler Project Name:** TVA Ash Spill  
**Project Site No.:** 2B  
**Station No.:** EMORY001.9RO  
**Date/Time Collected:** 04/30/2009 10:55  
**Sampler's Name:** Brandy Long  
**County:** ROANE - 73  
**Sample Matrix:** Water  
**EFO:** Knoxville  
**Sampling Agency:** TDEC-WPC  
**Billing Code:** 327.34-20  
**Send Report To:** TDEC-WPC  
**Agency Invoiced:** TDEC-WPC  
**Priority Date:**  
**Date/Time Received:** 04/30/2009 14:25  
**Received By:** E McCrary

**Field Determinations**  
**pH:** 7.20 pH Units  
**Chlorine, residual:**  
**Conductivity:** 59 uMHO  
**Temperature:** 19.70  
**Dissolved Oxygen:** 9.22 mg/L  
**Other:**  
**Flow:** CFS

TEST: Digestion Metals		METHOD: EPA 200.2				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Digestion Metals	05/02/2009				A Wilson	5/2/2009

TEST: ICP		METHOD: EPA 200.7				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Iron	180	µg/L	2.9	10	A Wilson	5/14/2009

TEST: ICP-MS		METHOD: EPA 200.8				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Aluminum	170	µg/L	6.4	10	A Wilson	5/8/2009
Antimony	U	µg/L	0.33	1	A Wilson	5/8/2009
Arsenic	U	µg/L	0.93	5	A Wilson	5/9/2009
Barium	26	µg/L	2.5	5	A Wilson	5/8/2009
Beryllium	U	µg/L	0.11	1	A Wilson	5/8/2009
Cadmium	U	µg/L	0.41	1	A Wilson	5/8/2009
Chromium	U	µg/L	2.0	5	A Wilson	5/8/2009
Cobalt	0.26J	µg/L	0.04	1	A Wilson	5/8/2009
Copper	3.1	µg/L	0.38	1	A Wilson	5/8/2009
Lead	0.37J	µg/L	0.10	1	A Wilson	5/8/2009
Manganese	45	µg/L	0.42	1	A Wilson	5/8/2009
Nickel	0.95J	µg/L	0.25	1	A Wilson	5/8/2009
Selenium	U	µg/L	1.3	5	A Wilson	5/9/2009
Silver	U	µg/L	0.03	0.25	A Wilson	5/8/2009
Thallium	U	µg/L	0.03	1	A Wilson	5/8/2009
Vanadium	U	µg/L	3.4	5	A Wilson	5/9/2009
Zinc	U	µg/L	1.9	5	A Wilson	5/8/2009

**Lab-Sample Number:** K00002336004  
**Project Name:** TVA-Ash Spill  
**Sample Description:** Emory River mile 1.9 at underwater weir  
**Sampler Project Name:** TVA Ash Spill  
**Project Site No.:** 2B  
**Station No.:** EMORY001.9RO  
**Date/Time Collected:** 04/30/2009 10:55  
**Sampler's Name:** Brandy Long  
**County:** ROANE - 73  
**Sample Matrix:** Water  
**EFO:** Knoxville  
**Sampling Agency:** TDEC-WPC  
**Billing Code:** 327.34-20  
**Send Report To:** TDEC-WPC  
**Agency Invoiced:** TDEC-WPC  
**Priority Date:**  
**Date/Time Received:** 04/30/2009 14:25  
**Received By:** E McCrary

**Field Determinations**

**pH:** 7.20 pH Units  
**Chlorine, residual:**  
**Conductivity:** 59 uMHO  
**Temperature:** 19.70  
**Dissolved Oxygen:** 9.22 mg/L  
**Other:**  
**Flow:** CFS

TEST: Mercury		METHOD: EPA 245.1				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Mercury	0.07J	µg/L	0.029	0.2	A Bass	4/30/2009

J - Estimated value between MDL and MQL

MDL - Method Detection Limit

MQL - Method Quantitation Limit

U - Undetected

**Lab-Sample Number:** K00002336005  
**Project Name:** TVA-Ash Spill  
**Sample Description:** Emory River mile 1.7  
**Sampler Project Name:** TVA Ash Spill  
**Project Site No.:** 3  
**Station No.:** EMORY001.7RO  
**Date/Time Collected:** 04/30/2009 11:07  
**Sampler's Name:** Brandy Long  
**County:** ROANE - 73  
**Sample Matrix:** Water  
**EFO:** Knoxville  
**Sampling Agency:** TDEC-WPC  
**Billing Code:** 327.34-20  
**Send Report To:** TDEC-WPC  
**Agency Invoiced:** TDEC-WPC  
**Priority Date:**  
**Date/Time Received:** 04/30/2009 14:25  
**Received By:** E McCrary

**Field Determinations**  
**pH:** 8.68 pH Units  
**Chlorine, residual:**  
**Conductivity:** 139 uMHO  
**Temperature:** 21.91  
**Dissolved Oxygen:** 11.58 mg/L  
**Other:**  
**Flow:** CFS

TEST: Digestion Metals			METHOD: EPA 200.2			
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Digestion Metals	05/02/2009				A Wilson	5/2/2009

TEST: ICP			METHOD: EPA 200.7			
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Iron	120	µg/L	2.9	10	A Wilson	5/14/2009

TEST: ICP-MS			METHOD: EPA 200.8			
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Aluminum	130	µg/L	6.4	10	A Wilson	5/8/2009
Antimony	U	µg/L	0.33	1	A Wilson	5/8/2009
Arsenic	U	µg/L	0.93	5	A Wilson	5/9/2009
Barium	31	µg/L	2.5	5	A Wilson	5/8/2009
Beryllium	U	µg/L	0.11	1	A Wilson	5/8/2009
Cadmium	U	µg/L	0.41	1	A Wilson	5/8/2009
Chromium	U	µg/L	2.0	5	A Wilson	5/8/2009
Cobalt	0.19J	µg/L	0.04	1	A Wilson	5/8/2009
Copper	2.5	µg/L	0.38	1	A Wilson	5/8/2009
Lead	0.29J	µg/L	0.10	1	A Wilson	5/8/2009
Manganese	24	µg/L	0.42	1	A Wilson	5/8/2009
Nickel	1.1	µg/L	0.25	1	A Wilson	5/8/2009
Selenium	U	µg/L	1.3	5	A Wilson	5/9/2009
Silver	U	µg/L	0.03	0.25	A Wilson	5/8/2009
Thallium	0.034J	µg/L	0.03	1	A Wilson	5/8/2009
Vanadium	U	µg/L	3.4	5	A Wilson	5/9/2009
Zinc	U	µg/L	1.9	5	A Wilson	5/8/2009

Lab-Sample Number: K00002336005  
Project Name: TVA-Ash Spill  
Sample Description: Emory River mile 1.7  
Sampler Project Name: TVA Ash Spill  
Project Site No.: 3  
Station No.: EMORY001.7RO  
Date/Time Collected: 04/30/2009 11:07  
Sampler's Name: Brandy Long  
County: ROANE - 73  
Sample Matrix: Water  
EFO: Knoxville  
Sampling Agency: TDEC-WPC  
Billing Code: 327.34-20  
Send Report To: TDEC-WPC  
Agency Invoiced: TDEC-WPC  
Priority Date:  
Date/Time Received: 04/30/2009 14:25  
Received By: E McCrary

**Field Determinations**

pH: 8.68 pH Units  
Chlorine, residual:  
Conductivity: 139 uMHO  
Temperature: 21.91  
Dissolved Oxygen: 11.58 mg/L  
Other:  
Flow: CFS

TEST: Mercury		METHOD: EPA 245.1				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Mercury	0.08J	µg/L	0.029	0.2	A Bass	4/30/2009

J - Estimated value between MDL and MQL

MDL - Method Detection Limit

MQL - Method Quantitation Limit

U - Undetected

**Lab-Sample Number:** K00002336006  
**Project Name:** TVA-Ash Spill  
**Sample Description:** Emory River mile 0.1  
**Sampler Project Name:** TVA Ash Spill  
**Project Site No.:** 4  
**Station No.:** EMORY000.1RO  
**Date/Time Collected:** 04/30/2009 11:17  
**Sampler's Name:** Brandy Long  
**County:** ROANE - 73  
**Sample Matrix:** Water  
**EFO:** Knoxville  
**Sampling Agency:** TDEC-WPC  
**Billing Code:** 327.34-20  
**Send Report To:** TDEC-WPC  
**Agency Invoiced:** TDEC-WPC  
**Priority Date:**  
**Date/Time Received:** 04/30/2009 14:25  
**Received By:** E McCrary

**Field Determinations**  
**pH:** 8.49 pH Units  
**Chlorine, residual:**  
**Conductivity:** 128 uMHO  
**Temperature:** 21.98  
**Dissolved Oxygen:** 10.94 mg/L  
**Other:**  
**Flow:** CFS

TEST: Digestion Metals		METHOD: EPA 200.2				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Digestion Metals	05/02/2009				A Wilson	5/2/2009

TEST: ICP		METHOD: EPA 200.7				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Iron	160	µg/L	2.9	10	A Wilson	5/14/2009

TEST: ICP-MS		METHOD: EPA 200.8				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Aluminum	220	µg/L	32.0	50	A Wilson	5/8/2009
Antimony	U	µg/L	0.33	1	A Wilson	5/8/2009
Arsenic	U	µg/L	0.93	5	A Wilson	5/9/2009
Barium	35	µg/L	2.5	5	A Wilson	5/8/2009
Beryllium	U	µg/L	0.11	1	A Wilson	5/8/2009
Cadmium	U	µg/L	0.41	1	A Wilson	5/8/2009
Chromium	U	µg/L	2.0	5	A Wilson	5/8/2009
Cobalt	0.26J	µg/L	0.04	1	A Wilson	5/8/2009
Copper	2.7	µg/L	0.38	1	A Wilson	5/8/2009
Lead	0.38J	µg/L	0.10	1	A Wilson	5/8/2009
Manganese	34	µg/L	0.42	1	A Wilson	5/8/2009
Nickel	1.3	µg/L	0.25	1	A Wilson	5/8/2009
Selenium	U	µg/L	1.3	5	A Wilson	5/9/2009
Silver	U	µg/L	0.03	0.25	A Wilson	5/8/2009
Thallium	0.038J	µg/L	0.03	1	A Wilson	5/8/2009
Vanadium	U	µg/L	3.4	5	A Wilson	5/9/2009
Zinc	U	µg/L	1.9	5	A Wilson	5/8/2009

**Lab-Sample Number:** K00002336006  
**Project Name:** TVA-Ash Spill  
**Sample Description:** Emory River mile 0.1  
**Sampler Project Name:** TVA Ash Spill  
**Project Site No.:** 4  
**Station No.:** EMORY000.1RO  
**Date/Time Collected:** 04/30/2009 11:17  
**Sampler's Name:** Brandy Long  
**County:** ROANE - 73  
**Sample Matrix:** Water  
**EFO:** Knoxville  
**Sampling Agency:** TDEC-WPC  
**Billing Code:** 327.34-20  
**Send Report To:** TDEC-WPC  
**Agency Invoiced:** TDEC-WPC  
**Priority Date:**  
**Date/Time Received:** 04/30/2009 14:25  
**Received By:** E McCrary

**Field Determinations**  
**pH:** 8.49 pH Units  
**Chlorine, residual:**  
**Conductivity:** 128 uMHO  
**Temperature:** 21.98  
**Dissolved Oxygen:** 10.94 mg/L  
**Other:**  
**Flow:** CFS

TEST: Mercury		METHOD: EPA 245.1				
ANALYTE	RESULT	UNITS	MDL	ML	ANALYZED BY:	DATE
Mercury	0.06J	µg/L	0.029	0.2	A Bass	4/30/2009

J - Estimated value between MDL and MQL

MDL - Method Detection Limit

MQL - Method Quantitation Limit

U - Undetected

**Lab-Sample Number:** K00002336007  
**Project Name:** TVA-Ash Spill  
**Sample Description:** Clinch River mile 2.3  
**Sampler Project Name:** TVA Ash Spill  
**Project Site No.:** 5  
**Station No.:** CLINC002.3RO  
**Date/Time Collected:** 04/30/2009 11:27  
**Sampler's Name:** Brandy Long  
**County:** ROANE - 73  
**Sample Matrix:** Water  
**EFO:** Knoxville  
**Sampling Agency:** TDEC-WPC  
**Billing Code:** 327.34-20  
**Send Report To:** TDEC-WPC  
**Agency Invoiced:** TDEC-WPC  
**Priority Date:**  
**Date/Time Received:** 04/30/2009 14:25  
**Received By:** E McCrary

**Field Determinations**  
**pH:** 7.90 pH Units  
**Chlorine, residual:**  
**Conductivity:** 98 uMHO  
**Temperature:** 22.00  
**Dissolved Oxygen:** 9.83 mg/L  
**Other:**  
**Flow:** CFS

TEST: Digestion Metals		METHOD: EPA 200.2				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Digestion Metals	05/02/2009				A Wilson	5/2/2009

TEST: ICP		METHOD: EPA 200.7				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Iron	210	µg/L	2.9	10	A Wilson	5/14/2009

TEST: ICP-MS		METHOD: EPA 200.8				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Aluminum	390	µg/L	32.0	50	A Wilson	5/8/2009
Antimony	U	µg/L	0.33	1	A Wilson	5/8/2009
Arsenic	1.5J	µg/L	0.93	5	A Wilson	5/9/2009
Barium	36	µg/L	2.5	5	A Wilson	5/8/2009
Beryllium	U	µg/L	0.11	1	A Wilson	5/8/2009
Cadmium	U	µg/L	0.41	1	A Wilson	5/8/2009
Chromium	U	µg/L	2.0	5	A Wilson	5/8/2009
Cobalt	0.36J	µg/L	0.04	1	A Wilson	5/8/2009
Copper	3.7	µg/L	0.38	1	A Wilson	5/8/2009
Lead	0.56J	µg/L	0.10	1	A Wilson	5/8/2009
Manganese	29	µg/L	0.42	1	A Wilson	5/8/2009
Nickel	1.5	µg/L	0.25	1	A Wilson	5/8/2009
Selenium	2.6J	µg/L	1.3	5	A Wilson	5/9/2009
Silver	U	µg/L	0.03	0.25	A Wilson	5/8/2009
Thallium	0.043J	µg/L	0.03	1	A Wilson	5/8/2009
Vanadium	U	µg/L	3.4	5	A Wilson	5/9/2009
Zinc	U	µg/L	1.9	5	A Wilson	5/8/2009



**Lab-Sample Number:** K00002336007  
**Project Name:** TVA-Ash Spill  
**Sample Description:** Clinch River mile 2.3  
**Sampler Project Name:** TVA Ash Spill  
**Project Site No.:** 5  
**Station No.:** CLINC002.3RO  
**Date/Time Collected:** 04/30/2009 11:27  
**Sampler's Name:** Brandy Long  
**County:** ROANE - 73  
**Sample Matrix:** Water  
**EFO:** Knoxville  
**Sampling Agency:** TDEC-WPC  
**Billing Code:** 327.34-20  
**Send Report To:** TDEC-WPC  
**Agency Invoiced:** TDEC-WPC  
**Priority Date:**  
**Date/Time Received:** 04/30/2009 14:25  
**Received By:** E McCrary

**Field Determinations**  
**pH:** 7.90 pH Units  
**Chlorine, residual:**  
**Conductivity:** 98 uMHO  
**Temperature:** 22.00  
**Dissolved Oxygen:** 9.83 mg/L  
**Other:**  
**Flow:** CFS

TEST: Mercury		METHOD: EPA 245.1				
ANALYTE	RESULT	UNITS	MDL	MLQ	ANALYZED BY:	DATE
Mercury	0.08J	µg/L	0.029	0.2	A Bass	4/30/2009

J - Estimated value between MDL and MQL

MDL - Method Detection Limit

MQL - Method Quantitation Limit

U - Undetected

**Lab-Sample Number:** K00002336008  
**Project Name:** TVA-Ash Spill  
**Sample Description:** Clinch River TVA Discharge Point  
**Sampler Project Name:** TVA Ash Spill  
**Project Site No.:** 5A  
**Station No.:** TN0005452Outfall002  
**Date/Time Collected:** 04/30/2009 11:37  
**Sampler's Name:** Brandy Long  
**County:** ROANE - 73  
**Sample Matrix:** Water  
**EFO:** Knoxville  
**Sampling Agency:** TDEC-WPC  
**Billing Code:** 327.34-20  
**Send Report To:** TDEC-WPC  
**Agency Invoiced:** TDEC-WPC  
**Priority Date:**  
**Date/Time Received:** 04/30/2009 14:25  
**Received By:** E McCrary

**Field Determinations**  
**pH:** 7.62 pH Units  
**Chlorine, residual:**  
**Conductivity:** 88 uMHO  
**Temperature:** 22.35  
**Dissolved Oxygen:** 9.63 mg/L  
**Other:**  
**Flow:** CFS

TEST: Digestion Metals		METHOD: EPA 200.2				
ANALYTE	RESULT	UNITS	MDL	ML	ANALYZED BY:	DATE
Digestion Metals	05/02/2009				A Wilson	5/2/2009

TEST: ICP		METHOD: EPA 200.7				
ANALYTE	RESULT	UNITS	MDL	ML	ANALYZED BY:	DATE
Iron	290	µg/L	2.9	10	A Wilson	5/14/2009

TEST: ICP-MS		METHOD: EPA 200.8				
ANALYTE	RESULT	UNITS	MDL	ML	ANALYZED BY:	DATE
Aluminum	96	µg/L	6.4	10	A Wilson	5/8/2009
Antimony	U	µg/L	0.33	1	A Wilson	5/8/2009
Arsenic	1.9J	µg/L	0.93	5	A Wilson	5/9/2009
Barium	8	µg/L	2.5	5	A Wilson	5/8/2009
Beryllium	U	µg/L	0.11	1	A Wilson	5/8/2009
Cadmium	U	µg/L	0.41	1	A Wilson	5/8/2009
Chromium	2.2J	µg/L	2.0	5	A Wilson	5/8/2009
Cobalt	0.099J	µg/L	0.04	1	A Wilson	5/8/2009
Copper	1.8	µg/L	0.38	1	A Wilson	5/8/2009
Lead	0.17J	µg/L	0.10	1	A Wilson	5/8/2009
Manganese	9.2	µg/L	0.42	1	A Wilson	5/8/2009
Nickel	0.29J	µg/L	0.25	1	A Wilson	5/8/2009
Selenium	U	µg/L	1.3	5	A Wilson	5/9/2009
Silver	U	µg/L	0.03	0.25	A Wilson	5/8/2009
Thallium	U	µg/L	0.03	1	A Wilson	5/8/2009
Vanadium	U	µg/L	3.4	5	A Wilson	5/9/2009
Zinc	U	µg/L	1.9	5	A Wilson	5/8/2009

**Lab-Sample Number:** K00002336008  
**Project Name:** TVA-Ash Spill  
**Sample Description:** Clinch River TVA Discharge Point  
**Sampler Project Name:** TVA Ash Spill  
**Project Site No.:** 5A  
**Station No.:** TN0005452Outfall002  
**Date/Time Collected:** 04/30/2009 11:37  
**Sampler's Name:** Brandy Long  
**County:** ROANE - 73  
**Sample Matrix:** Water  
**EFO:** Knoxville  
**Sampling Agency:** TDEC-WPC  
**Billing Code:** 327.34-20  
**Send Report To:** TDEC-WPC  
**Agency Invoiced:** TDEC-WPC  
**Priority Date:**  
**Date/Time Received:** 04/30/2009 14:25  
**Received By:** E McCrary

**Field Determinations**

**pH:** 7.62 pH Units  
**Chlorine, residual:**  
**Conductivity:** 88 uMHO  
**Temperature:** 22.35  
**Dissolved Oxygen:** 9.63 mg/L  
**Other:**  
**Flow:** CFS

TEST: Mercury		METHOD: EPA 245.1				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Mercury	0.04J	µg/L	0.029	0.2	A Bass	4/30/2009

J - Estimated value between MDL and MQL

MDL - Method Detection Limit

MQL - Method Quantitation Limit

U - Undetected

<b>Lab-Sample Number:</b>	K00002336009	<b>Field Determinations</b>	
<b>Project Name:</b>	TVA-Ash Spill	<b>pH:</b>	8.42      pH Units
<b>Sample Description:</b>	Clinch River mile 4.5 near Sugar Grove Valley R	<b>Chlorine, residual:</b>	
<b>Sampler Project Name:</b>	TVA Ash Spill	<b>Conductivity:</b>	133      uMHO
<b>Project Site No.:</b>	6	<b>Temperature:</b>	21.85
<b>Station No.:</b>	CLINC004.5RO	<b>Dissolved Oxygen:</b>	10.95      mg/L
<b>Date/Time Collected:</b>	04/30/2009    11:49	<b>Other:</b>	
<b>Sampler's Name:</b>	Brandy Long	<b>Flow:</b>	CFS
<b>County:</b>	ROANE - 73		
<b>Sample Matrix:</b>	Water		
<b>EFO:</b>	Knoxville		
<b>Sampling Agency:</b>	TDEC-WPC		
<b>Billing Code:</b>	327.34-20		
<b>Send Report To:</b>	TDEC-WPC		
<b>Agency Invoiced:</b>	TDEC-WPC		
<b>Priority Date:</b>			
<b>Date/Time Received:</b>	04/30/2009    14:25		
<b>Received By:</b>	E McCrary		

TEST: Digestion Metals		METHOD: EPA 200.2				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Digestion Metals	05/02/2009				A Wilson	5/2/2009

TEST: ICP		METHOD: EPA 200.7				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Iron	84	µg/L	2.9	10	A Wilson	5/14/2009

TEST: ICP-MS		METHOD: EPA 200.8				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Aluminum	90	µg/L	6.4	10	A Wilson	5/8/2009
Antimony	U	µg/L	0.33	1	A Wilson	5/8/2009
Arsenic	U	µg/L	0.93	5	A Wilson	5/9/2009
Barium	31	µg/L	2.5	5	A Wilson	5/8/2009
Beryllium	U	µg/L	0.11	1	A Wilson	5/8/2009
Cadmium	U	µg/L	0.41	1	A Wilson	5/8/2009
Chromium	2.1J	µg/L	2.0	5	A Wilson	5/8/2009
Cobalt	0.17J	µg/L	0.04	1	A Wilson	5/8/2009
Copper	2.7	µg/L	0.38	1	A Wilson	5/8/2009
Lead	0.27J	µg/L	0.10	1	A Wilson	5/8/2009
Manganese	27	µg/L	0.42	1	A Wilson	5/8/2009
Nickel	1.3	µg/L	0.25	1	A Wilson	5/8/2009
Selenium	U	µg/L	1.3	5	A Wilson	5/9/2009
Silver	U	µg/L	0.03	0.25	A Wilson	5/8/2009
Thallium	U	µg/L	0.03	1	A Wilson	5/8/2009
Vanadium	U	µg/L	3.4	5	A Wilson	5/9/2009
Zinc	U	µg/L	1.9	5	A Wilson	5/8/2009

<b>Lab-Sample Number:</b>	K00002336009	<b>Field Determinations</b>	
<b>Project Name:</b>	TVA-Ash Spill	<b>pH:</b>	8.42      pH Units
<b>Sample Description:</b>	Clinch River mile 4.5 near Sugar Grove Valley R	<b>Chlorine, residual:</b>	
<b>Sampler Project Name:</b>	TVA Ash Spill	<b>Conductivity:</b>	133      uMHO
<b>Project Site No.:</b>	6	<b>Temperature:</b>	21.85
<b>Station No.:</b>	CLINC004.5RO	<b>Dissolved Oxygen:</b>	10.95      mg/L
<b>Date/Time Collected:</b>	04/30/2009    11:49	<b>Other:</b>	
<b>Sampler's Name:</b>	Brandy Long	<b>Flow:</b>	CFS
<b>County:</b>	ROANE - 73		
<b>Sample Matrix:</b>	Water		
<b>EFO:</b>	Knoxville		
<b>Sampling Agency:</b>	TDEC-WPC		
<b>Billing Code:</b>	327.34-20		
<b>Send Report To:</b>	TDEC-WPC		
<b>Agency Invoiced:</b>	TDEC-WPC		
<b>Priority Date:</b>			
<b>Date/Time Received:</b>	04/30/2009    14:25		
<b>Received By:</b>	E McCrary		

TEST: Mercury		METHOD: EPA 245.1				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Mercury	0.09J	µg/L	0.029	0.2	A Bass	4/30/2009

J - Estimated value between MDL and MQL

MDL - Method Detection Limit

MQL - Method Quantitation Limit

U - Undetected